

ABSTRACT OF THE DISCLOSURE

An anti-microbial and/or anti-fungal synthetic fiber and laminate products made partially or wholly therefrom. The fiber comprises various thermoplastic polymers and additives in a mono-component form or a bi-component form in either a core-sheath or side-by-side configurations. The anti-microbial synthetic fibers comprise inorganic anti-microbial additives, distributed in certain areas to reduce the amount of the anti-microbial agents being used, and therefore the cost of such fibers. The fibers comprise high tenacity polymers (e.g. PET) in one portion and hydrolysis resistance polymers (e.g. PCT) in another portion with the additives. The fibers can further be blended with non-anti-microbial fibers such as cotton, wool, polyester, acrylic, nylon etc. to provide anti-microbial finished fabrics. In one embodiment, binder fibers are used which are mixed with other fibers.